

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) Arrangement on a semiconductor chip for calibrating a temperature setting curve having

a signal generation unit for providing a first signal, which is proportional to an the actual temperature of the chip, whereby a signal offset is creatable by the signal generation unit, which is combined with the first signal defining a second signal; and a ~~temperature signal~~-extraction unit receiving the first signal and the second signal for calculating a first temperature point based on the first signal and a second temperature point based on the second signal, wherein the second temperature point is a virtual temperature point.

2. (original) Arrangement as claimed in claim 1, whereby the first signal, which is proportional to the actual temperature of the chip, is a current, a voltage or a frequency.

3. (original) Arrangement as claimed in claim 1, whereby the first signal and the second signal are convertible into digital signals, whereby the temperature extraction unit calculates the first and second temperature points for calibrating the temperature setting curve.

4. (currently amended) Method for calibrating a temperature setting curve of a temperature sensor arrangement on a semiconductor chip, the method comprising:

reading a first signal, which is proportional to an the actual temperature of the semiconductor chip;

generating a signal offset, which is combined with the first signal defining a second signal; and

extracting a first actual temperature T_A from the first signal and a second virtual temperature from the second signal.

5. (currently amended) Method as claimed in claim 4, whereby the first actual temperature and the second virtual temperature ~~resulting temperatures~~ are used for providing calibration parameters to the semiconductor chip.

6. (original) Method as claimed in claim 5, whereby calculating calibration parameters can be performed on-chip or off-chip.

7. (original) Method as claimed in claim 4, whereby additional signal offsets are provided for calculating more than two temperature points and calibrating a non linear temperature setting curve.

8. (currently amended) Method as claimed in claim 4, whereby the signal offset is subtracted from the first signal or added to the first signal defining the second signal, which is provided to the temperature extraction unit.

9. (new) The arrangement as claimed in claim 1 wherein the second temperature point does not exist in the semiconductor chip during calibration of the temperature setting curve.

10. (new) The method as claimed in claim 4 wherein the second virtual temperature does not exist on the semiconductor chip during calibration of the temperature setting curve.